

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

December 1, 2005

TO: Internal File

THRU: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Wayne H. Western, Team Lead

RE: Prep Plant & Refuse Pile Phase I and Phase III, Plateau Mining Corporation, Willow Creek Mine, C/007/0038, Task ID #2344

SUMMARY:

Foundation Coal Company applied for Phase I bond release for 49.1 acres associated with the Schoolhouse Canyon Refuse Pile, and Phase III bond release for 46.2 acres associated with the preparation plant area of the Willow Creek Mine on September 19, 2005. They completed reclamation of the areas in the spring of 2004.

This technical memorandum discusses the engineering and bond issues. The Permittee did not meet the requirements for bond release. The Division will send a deficiency letter to the Permittee.

TECHNICAL MEMO

TECHNICAL ANALYSIS:

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

I General Requirements for Bond Release

Certification: The Permittee provided an affidavit notarized signature by a responsible official of the permittee, certifying that the information contained in the request is true and correct to the best of the official's information and belief; and all applicable reclamation activities have been accomplished in accordance with the requirements of the Act, the Regulatory Program,

Newspaper Advertisement: The Permittee provided a copy of the newspaper advertisement for Phase I and Phase III bond release. The newspaper advertisement was adequate because it contained the following:

- The permit number, name of the permittee, and the permit approval date.
- A description of the precise location of the land affected.
- The number of acres to be considered for release.
- The amount and type of bond the Division currently holds.
- The amount of bond being sought for release.
- A description of the type of reclamation work performed and the dates when the work was performed and completed.
- A description of the results achieved in relation to the mining and reclamation plan (i.e. stability, restoration of drainages, vegetation establishment).
- A statement indicating written comments, objections and requests for public hearings or informal conferences may be submitted to the Division of Oil, Gas and Mining.

TECHNICAL MEMO

The Permittee needs to include proof of publication of the newspaper advertisement. R645-301-880.120

Notification Letters: The Permittee provided copies of the notification letters sent to all parties who have a valid interest in the bond release. The notification letters contained the same information as the newspaper advertisement.

II GENERAL TECHNICAL REQUIREMENTS

- A legal description of the permit area. The Permittee provided the legal description of the newspaper advertisements.
- Maps. The Permittee included maps and cross sections of the area.
 - Map 3.4-13AB, shows the area for which Phase III bond release is proposed.
 - The Permittee must show the Phase I bond boundaries. The Division addressed this deficiency in the maps section.
 - Map 3.4-13AB shows the topography of the Phase I and Phase III areas. The map is at a scale of 1 inch = 200 feet. The Division prefers maps to be at a scale of 1 inch = 100 feet. Due to the size of the disturbed area a map at a scale of 1 inch = 100 feet is not practical. Therefore, the Division will accept the smaller scale map. The cross sections in the Phase I bond release area are on 200-foot centers. The Division recommends that cross section be on 100-foot centers. However, the Division will accept the cross sections on 200-foot centers due to the size of the project.
 - The maps need to show the dates and acreages when reclamation was completed.
 - The maps need to show the operation or reclamation status.

Phase I Bond Release: The specific requirements for Phase I bond release are as follows:

- Postmining Contour Topographic Maps showing detail including:
 - Postmining hydrologic features including restoration of natural drainages. Note: no sediment ponds will remain after Phase I bond release.
 - Cross sections showing important topographic features including but not necessarily limited to, approximate original contour, roads, etc.
 - Dates of backfilling and grading activities are not shown. The deficiency will be noted in map section.
 - Dates of topsoil replacement are not shown. The deficiency will be noted in topsoil section.
 - Topsoil replacement depths not shown. The deficiency will be noted in topsoil section.

TECHNICAL MEMO

- Overburden chemical analyses results, and discussion on potential adverse affects on plant growth or water quality. The Division considers that those condition have been met if the topsoil requirements have been met.
- Evaluation of topsoil or substitute soil including chemical and physical analyses and replacement depths (if included in this phase of bond release). The Division considers that those conditions have been met if the topsoil requirements have been met.
- Evaluation of subsoil including analyses and replacement depths (optional). The Division considers that those conditions have been met if the topsoil requirements have been met.

III GENERAL ALTERNATIVE POSTMINING LAND USE

Because the Permittee proposes that Phase III bond release be granted because the alternative postmining land use has been achieved some of the requirements for Phase III bond release modified. The modified requirements include:

- The requirements that site be backfilled and graded and that topsoil be placed can be waved if the approved alternative postmining land use is to be implemented. The Division can only approve the alternative postmining land use if the site will be stable.
- The vegetation requirements may be waived if the alternative postmining land use is implemented. The alternative postmining land use will minimize erosion and off site impacts therefore revegetation is not needed.

For Phase III bond release, the following information must be must be included in the bond release package or referenced in the MRP:

A detailed demonstration that the approved postmining land use is achieved. This may include, but not be limited to, lease agreements, zoning information, contracts, and letters of commitment for industrial/commercial or residential uses; information on water availability and suitability for developed water resources; vegetation productivity; livestock use; wildlife counts; and recreational use.

The Permittee did not include documents in the bond release package that showed they had achieved the postmining land use. The Permittee instead reference Appendix 3.4L, which contains the purchase agreement by Price River Water Improvement District.

Findings:

The information in the bond release application is not considered adequate to meet the bond release requirements. The deficiencies in this section of the TA will be address in other section of the TA and therefore will not be repeated here.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The Permittee met the requirements for the postmining land use. The Permittee does not plan to change the postmining land uses as part of the bond release application. The Division approved an alternative postmining land; industrial for the area sold to PRWID. (See the sales agreement is in Appendix 5.4L of the MRP.) Because of the sale, the Division finds that the postmining land use will be implemented and that Phase III bond release should be granted if all other requirements have been met.

Findings:

The information in the bond release application is adequate to meet the bond release requirements for the postmining land uses.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The Permittee met the minimum requirements for Phase I and Phase III bond release in the areas mentioned. The requirements for approximate original contour restoration for the different phase are:

Phase I Bond Release: The general requirements for achieving the apporimate original contour restoration for are:

- Eliminate all spoil piles. All spoil material was properly backfilled and graded.

TECHNICAL MEMO

- Eliminate all highwalls: There are no highwalls in the area. Some cutslopes will remain because the Permittee cannot eliminate all cutslopes without either increasing the slope angles so that the minimum 1.3 safety factor cannot be achieved or placing so much fill in the area that the hydrologic requirements could not be met (interference with stream flows.)
- Hydrology: The Division considers that the site meet all the AOC hydrology requirements if all the hydrology requirements have been met. See hydrology section of the TA for details.
- Postmining land use: The postmining land use for the area is wildlife and grazing. The reclamation plans were designed to allow the postmining land use to be achieved.

Phase III Bond Release, Alternative Postmining Land Use: The AOC requirement for an alternative postmining land use is that the site will be restored to a higher and better use. The Division approved the alternative postmining land use. In order for the Division to grant Phase III bond release the Permittee showed:

- There is a reasonable likelihood that the alternative postmining land use will be achieved. The Price River Water Improvement District (PRWID) has purchased the site for use in a water treatment facility.
- The use does not present any actual or probable hazard to public health or safety, or a threat to water diminution or pollution. The site will be operated by a public entity that will use the site to upgrade the water treatment facilities. The Division approved the alternative postmining land use after they determined that those requirements would be met.
- The use will not be impractical or unreasonable, inconsistent with applicable land use policies or plans, involve unreasonable delay in implementation, or cause or contribute to violation of Federal, State or local law. The alternative land use has been implemented and show comply with all laws.

Findings:

The information in the bond release application is adequate to meet the bond release requirements for the approximate original contour restoration.

BACKFILLING AND GRADING

Analysis:

General

The Permittee met the backfilling and grading requirements for Phase I and Phase III bond release.

Phase I

The backfilling and grading requirements for Phase I bond release include all of the AOC requirements plus the following:

- The slope will be at the angle of repose or such lesser slope as is necessary to achieve a minimum long stability.
- A minimum static safety factor of 1.3 or greater.
- The Permittee met those requirements because the as built for the Phase I areas have been certified by a professional engineer.

Phase III

The backfilling and grading requirements for Phase III bond release include all of the AOC requirements plus the following:

- All slopes whether reclaimed or not will be at the angle of repose or such lesser slope as is necessary to achieve a minimum long stability.
- All slopes will have a static safety factor of 1.3 or greater.
- The Permittee met those requirements because the as built for all reclaim slopes and slopes left in the operational phase have been certified by a professional engineer.

Previously Mined Areas

The only issues that affect previously mined areas involve highwall remnants. There are no highwalls in either the Phase I or Phase III areas.

Findings:

The information in the bond release application is adequate to meet the bond release requirements for backfilling and grading.

TECHNICAL MEMO

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

The Permittee met the requirements for closing all mining openings. There are no mine openings in either the Phase I or Phase III areas.

Findings:

The Permittee met the requirements for properly sealing all mine openings.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

The Permittee met the requirements for bond releases on all reclaimed roads in the areas which they applied for Phase I and Phase III bond release. All roads within the Phase I and Phase III areas that are not needed for the postmining land use have been reclaimed. The Permittee reclaimed those roads by:

- Removing all culverts not needed for the postmining land use.
- Disposing of road-surfacing materials.
- Grading the roads so that blend into the reclaimed topography.

Retention

Primary roads P-1, P-2, P-4 and P-5 are retained to support the postmining land uses as followings:

- Roads P-1 and P-4 are used by Utah Power and Light, Helper City, Price City and PRWID for facility access.

- Roads P-2 and P-5 are used by Utah Power and Light to inspect and repair power lines that traverse Barn Canyon.

Findings:

The Permittee met the requirements for reclaiming or retaining roads.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Reclamation Backfilling And Grading Maps

The Permittee met the requirements for backfilling and grading maps by providing certified as-builts (Exhibit 3.4-13AB.)

Reclamation Facilities Maps

The Permittee met the requirements for reclamation facilities maps by providing certified as-builts (Exhibit 3.4-13AB.)

Final Surface Configuration Maps

The Permittee met the requirements for the final surface configuration maps by providing certified as-builts (Exhibit 3.4-13AB.)

Reclamation Surface And Subsurface Manmade Features Maps

The Permittee met the requirements for reclamation surface and subsurface manmade features by providing certified as-builts (Exhibit 3.4-13AB.)

Certification Requirements.

The Permittee met the requirements for certification by having all appropriate maps certified.

TECHNICAL MEMO

Findings:

The Permittee met the requirements for the map information required in the maps, plans and cross sections reclamation operations.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of Bond Amount

The Permittee must include detailed reclamation cost estimate for the Phase I and Phase III areas. At a minimum, bond calculations must show

- Which structures can receive Phase I bond release and which structures can receive Phase III.
- Which earthwork costs that can receive Phase I bond release and those which can received Phase III bond release. The earthwork costs estimates must include maps that show:
 - The maps need to show the dates and acreages when reclamation was completed.
 - The maps need to show the operation or reclamation status.
 - The maps need to show what areas are part of Phase I and Phase III bond release.
- Which revegetation cost can received Phase III bond release.

Findings:

The information provided in the bond release application is not considered adequate to meet the requirements of this section. Before approval, the Permittee must provide the following in accordance with:

R645-301-830: The Permittee must provide the Division with updated reclamation cost information, such that the Division can determine the amount of reclamation work needed after staged bond release. The Permittee must show in the reclamation cost estimate those structures, which are eligible for Phase I and Phase III bond release. The Permittee must show the amount of earthwork that is available for Phase I and Phase III bond release. The Division realizes that the earthwork calculations were not based on a Phase I

TECHNICAL MEMO

and Phase III areas so estimate on the amount of earthwork done at each site might have to be done. In addition the Permittee must provide the following:

- The maps need to show the dates and acreages when reclamation was completed
- The maps need to show the operation or reclamation status.
- The maps need to show what areas are part of Phase I and Phase III bond release. The Permittee must also show the amount of vegetation that can be released under Phase III and the amount that will have to be retained for the Phase I site and the loadout area.